

COASTAL STORM SURVEY

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF COASTAL ENGINEERING - TOMS RIVER NJ

12:00 P.M. TUESDAY, MARCH 1, 2005



NEW JERSEY COASTLINE INCLUDING RARITAN AND DELAWARE BAY

A FAST MOVING NOR'EASTER FORMED OFF THE CAROLINA COAST ON SUNDAY, INTENSIFYING AS IT RAPIDLY MOVED NORTHEASTWARD TO JUST SOUTH OF BLOCK ISLAND BY MIDNIGHT MONDAY NIGHT. THE STORM BROUGHT A BRIEF, YET SUSTAINED PERIOD OF ONSHORE FLOW THROUGHOUT THE MONDAY AND MONDAY NIGHT, CAUSING ROUGH SEAS ALONG THE COAST AND ELEVATED TIDE LEVELS. THE RELATIVELY INTENSE, YET SHORT DURATION STORM RESULTED IN WIDESPREAD MINOR TIDAL FLOODING AND MODERATE EROSION ALONG THE COAST.

EAST-NORTHEAST WINDS AVERAGED 25 TO 30 M.P.H., GUSTING TO NEAR 35 M.P.H. FOR AN APPROXIMATELY 12-HOUR PERIOD, BEGINNING AROUND MID-MORNING MONDAY, BEFORE TURNING NORTHWESTWARD AND DIMINISHING EARLY TUESDAY MORNING. BREAKERS ALONG THE BEACHFRONT REACHED A MAXIMUM HEIGHT OF ABOUT 9.6 FEET AS RECORDED ON LONG BEACH ISLAND LATE MONDAY. TIDAL DEPARTURES WITH THIS STORM AVERAGED AROUND 2.0' - 2.5' LATE MONDAY, RESULTING IN MINOR TIDAL FLOODING DURING THE HIGH TIDE CYCLE MONDAY NIGHT.

THE BUREAU OF COASTAL ENGINEERING CONDUCTED A SURVEY OF THE NEW JERSEY COASTLINE ON TUESDAY, MARCH 01, 2005, THE RESULTS OF WHICH ARE INCLUDED AS PART OF THIS REPORT.

ATLANTIC FACING BEACHES SUSTAINED MODERATE EROSION STATEWIDE, WITH THE EXCEPTION OF NORTHERN OCEAN COUNTY, WHICH SUSTAINED ONLY SLIGHT EROSION. A DETAILED SUMMARY LISTED BY MUNICIPALITY FROM NORTH TO SOUTH FOLLOWS THIS REPORT.

<http://www.nj.gov/dep/shoreprotection/storm.htm>

*Note: Wind data courtesy of the National Oceanic & Atmospheric Administration's NDBC Station ALSN6
Wave heights courtesy of Steven's Institute's Davidson Lab CPTAS Coastal Monitoring Network
Surge data courtesy of the National Oceanic & Atmospheric Administration's Meteorological Data Laboratory.*

The following is a summary of the impacts as of 12:00 PM, Tuesday, March 1, 2005 listed by municipality for the entire coast:

PERTH AMBOY	No erosion, no damage.
SOUTH AMBOY	No erosion, no damage.
OLD BRIDGE	No erosion, no damage.
CLIFFWOOD BEACH	No erosion, no damage.
KEYPORT	No erosion, no damage.
UNION BEACH	No erosion, no damage.
KEANSBURG	2' - 3' vertical cut throughout. No damage reported
BAYSHORE FLOODGATE	No erosion, no damage.
PORT MONMOUTH	No erosion, no damage.
BELFORD	No erosion, no damage.
LEONARDO	No erosion, no damage.
ATLANTIC HIGHLANDS	No erosion, no damage.
HIGHLANDS	No erosion, no damage.
SEA BRIGHT	35' horizontal loss of beach throughout. No damage reported.
MONMOUTH BEACH	No erosion, no damage.
LONG BRANCH	35' horizontal loss of beach throughout. No damage reported.
ELBERON	10' horizontal loss of beach throughout. No damage reported.
ALLENHURST	10' horizontal loss of beach throughout. No damage reported.
DEAL	10' horizontal loss of beach throughout. No damage reported.
LOCH ARBOR	10' horizontal loss of beach throughout. No damage reported.
ASBURY PARK	3' vertical cut by 75' wide throughout.

OCEAN GROVE	3' vertical cut by 75' wide throughout.
BRADLEY BEACH	2' to 3' vertical cut by 75' wide throughout.
AVON BY THE SEA	2' vertical cut by 75' wide throughout.
BELMAR	2' vertical cut by 50' to 75' wide throughout.
SPRING LAKE	2' vertical cut by 50' wide throughout.
SEA GIRT	2' vertical cut by 50' wide throughout.
MANASQUAN	2' vertical cut by 30' to 50' wide throughout.
POINT PLEASANT	No erosion, no damage.
BAYHEAD	No erosion, no damage.
MANTOLOKING	No erosion, no damage.
LAVALLETTE	No erosion, no damage.
BRICKTOWN	No erosion, no damage.
ORTLEY BEACH	No erosion, no damage.
SEASIDE HEIGHTS	No erosion, no damage.
SEASIDE PARK	No erosion, no damage.
ISLAND BEACH STATE PARK	No erosion, no damage.
BARNEGAT LIGHT	Localized minor dune erosion.
LOVELADIES	Localized minor dune erosion.
HARVEY CEDARS	5' vertical by 10' horizontal cut to 800' section of dune extending from Bergen Ave to Cumberland Ave. Elsewhere, slight erosion.
NORTH BEACH	Localized minor dune erosion.
SURF CITY	Localized minor dune erosion.
SHIP BOTTOM	2' to 4' vertical sloping cut by 60' wide throughout.

LONG BEACH TOWNSHIP	2' to 4' vertical sloping cut by 60' wide throughout. Localized minor dune erosion.
BRANT BEACH	2' to 4' vertical sloping cut by 60' wide throughout.
BEACH HAVEN	2' to 4' vertical sloping cut by 60' wide throughout. Complete loss of berm protection and an additional 8' of Merivale Ave. street end was lost. Additional exposure of house on the south side.
HOLGATE	2' to 4' vertical sloping cut by 60' wide throughout. Localized dune erosion.
BRIGANTINE	3' to 4' vertical sloping cut of varying width throughout.
ATLANTIC CITY	3' to 4' vertical sloping cut of varying width throughout. 10' cut to new beachfill from Showboat Casino to Massachusetts Ave. and at Vermont Ave.
VENTNOR	5' vertical cut from Baltimore Ave. south to New Haven. Elsewhere, 3' to 4' vertical sloping cut of varying width throughout.
MARGATE	1' to 2' vertical sloping cut of varying width throughout. No damage reported.
LONGPORT	2' to 3' vertical sloping cut of varying width throughout. No damage reported.
OCEAN CITY	3' to 4' vertical sloping cut of varying width throughout. from fishing pier to amusement pier. 8' - 10' vertical cut of varying width from 8 th St to Seaspray Ave with dune fence down in some areas. 2' sloped erosion of varying width from Seaspray Ave to Long port Bridge.
STRATHMERE	2' vertical cut at Seacliff Ave. Elsewhere, 2' sloped erosion throughout.
WHALE BEACH	Elsewhere, 2' sloped erosion throughout. Localized cuts along geotubes.
SEA ISLE CITY	2' vertical cut by 40' wide at bridge. Between 86 th to 87 th St. vertical cut to dune and rocks are exposed. Loss of dune fencing reported.
AVALON	1' sloped erosion throughout. 8 th St. jetty corestone exposed.
STONE HARBOR	1' vertical cut throughout. Minor scour at all outfalls.
NORTH WILDWOOD	2' - 2.5' vertical cut by 85' wide throughout. 3' - 5' vertical cut to 1750' of dune system.
WILDWOOD CREST	2' - 2.5' vertical cut by 200' wide throughout. All outfalls exposed.
WILDWOOD	2' - 2.5' vertical cut by 120' wide throughout.
CAPE MAY CITY	1' - 2' sloped erosion throughout.

CAPE MAY POINT STATE PARK	1' – 2' sloped erosion throughout.
CAPE MAY POINT BOROUGH	1' – 2' sloped erosion throughout.
DELAWARE BAY AND RIVER AREA	No significant erosion, no damage reported.

AREAS OF ATTENTION:

LONG BEACH ISLAND BEACHES REMAIN NARROW WITH LITTLE OR NO FORE-BEACH AND COASTAL INFRASTRUCTURE REMAINS EXTREMELY VULNERABLE TO DAMAGE FROM STORM SURGE AND DIRECT WAVE ATTACK.

SPECIFICALLY:

HARVEY CEDARS - OCEAN COUNTY
LONG BEACH TOWNSHIP - OCEAN COUNTY
BRANT BEACH - OCEAN COUNTY
BEACH HAVEN - OCEAN COUNTY
VENTNOR - ATLANTIC COUNTY

EMERGENCY REPAIRS NEEDED:

BEACH HAVEN - OCEAN COUNTY (LEEWARD STREET AND MERRIVALE AVE.)
(TOWNSHIP CONDUCTS EMERGENCY SAND PLACEMENT UNDER CURRENT BEACH MAINTENANCE PERMIT)

BARNEGAT LIGHT - OCEAN COUNTY (BULKHEAD BETWEEN BROADWAY & 5TH AVE.)
(CONSTRUCTION CONTRACT PENDING)

VENTNOR - ATLANTIC COUNTY (BALTIMORE SOUTH TO NEW HAVEN)
(US ARMY CORPS OF ENGINEERS PERFORMING BEACH PROFILING AT SOUTHERN END OF VENTOR RESULTING FROM PREVIOUS STORM EVENTS)

FOLLOW-UP INSPECTIONS:

NO ADDITIONAL INSPECTIONS ARE ANTICIPATED FOR THIS EVENT.

EROSION RATING:

ATLANTIC FACING BEACHES SUSTAINED MODERATE EROSION STATEWIDE, WITH THE EXCEPTION OF NORTHERN OCEAN COUNTY, WHICH SUSTAINED ONLY SLIGHT EROSION.

END